PEGGY R. BIGA

PROFESSOR & CHAIR
Texas State University | Department of Biology
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EDUCATION

1993-1997 Bachelor of Science, Angelo State University, San Angelo, TX

1997-1999 Master of Science, Angelo State University, San Angelo, TX, Nutrition. Mentor: *Brian J. May*

1999-2003 Doctor of Philosophy, University of Idaho, Moscow, ID, Nutritional Physiology
Dissertation: *The effects of recombinant bovine somatotropin on growth-related genes in rainbow trout (Oncorhynchus mykiss).* Mentor: *Gerald T. Schelling (d. 2001), Troy L. Ott*

POSTDOCTORAL TRAINING

2004 - 2005 Research Associate, Great Lakes WATER Institute, University of Wisconsin-Milwaukee, Milwaukee, WI; Mentor: Frederick 'Rick' Goetz

2003 - 2004 Postdoctoral Scientist Marine Biological Laboratory, Woods Hole, MA; Mentor: Frederick 'Rick' Goetz

PROFESSIONAL EXPERIENCE

2025 – present	Professor, Chair	Department of Biology, Texas State University
2023 – 2025	Graduate Program Director	Department of Biology, University of Alabama at Birmingham
2019 - 2025	Associate Professor (with Tenure)	Department of Biology, University of Alabama at Birmingham
2019 - 2021	Science and Technology Policy Fellow	American Association for the Advancement of Science, USDA Chief Scientist Office, Washington, DC
2012 - 2018	Assistant Professor	Department of Biology, University of Alabama at Birmingham
2007 - 2012	Assistant Professor	Department of Biological Sciences, North Dakota State University, Fargo, ND
2005 - 2007	Assistant Scientist	Great Lakes WATER Institute, University of Wisconsin-Milwaukee, Milwaukee, WI

UAB CENTER APPOINTMENTS

January 2023	Associate Scientist, Social Science and Justice Research, UAB
January 2017	Scientist, Global Center for Craniofacial, Oral and Dental Disorders, UAB
May 2016	Associate Scientist, Comprehensive Diabetes Center, UAB
October 2015	Scientist, Comprehensive Center for Healthy Aging, UAB
August 2012	Associate Scientist, Nutrition Obesity Research Center, UAB

UNIVERSITY SERVICE ROLES

2024 – present	Faculty Advisor, Science Policy Advocacy Network (SPAN), UAB
2022 – present	Chair of the Faculty Senate Research Committee, UAB
2022 – present	Member Faculty Senate Executive Committee, UAB
2022 – present	Data Management & Sharing Plans Working Group, Member, UAB Office of Research

2022 – present Faculty Advisor, HerScience Student Outreach Group
2021 – present Member of the Faculty Senate, UAB
2021 – present Goldwater Internal Nominee Selection Committee
2018 – present UAB Sustainability Ambassador
2023 – 2024 Indirect Cost Rate Sharing Taskforce Member, UAB Provost Office
2022 – 2023 Associate Vice President for Research Business Operations Search Committee, Member, UAB
2022 – 2023 Animal Resource Program *per diem* Rate Taskforce Member, UAB Office of Research
2021 – 2024 Institutional Biosafety Committee (IBC), Faculty Senate Representative
2021 – 2023 UAB Blazer Core Faculty Fellow, Class of 2023
2021 – 2022 Senator-at-Large, Faculty Senate Executive Committee, UAB
2021 – 2022 Member of the Faculty Senate Research Committee, UAB
2021 – 2023 Faculty Senate Representative, Institutional Biosafety Committee, UAB
2013 – 2015 Judge, UAB CORD Summer Research Interns and Summer Science Institute
2009 – 2012 University Faculty Senator, NDSU
2010 – 1012 Faculty Senate Executive Committee Member, NDSU
2007 – 2012 Alternate member, Institutional Animal Care and Use Committee, NDSU
2008 – 2012 Faculty advisor, NDSU Cycling Club, NDSU
2007 – 2009 Faculty Mentor, Residence Life First Year Experience Program, NDSU

COLLEGE SERVICE ROLES

2021 – present CAS Curriculum & Education Policy Committee (CEPC) Member

DEPARTMENTAL SERVICE ROLES

2024 – present Department of Biology, Chair Search Committee, UAB
2023 – present Department of Biology Leadership Team, UAB
2023 – present Graduate Program Director, Biology MS, PhD, & Certificate Programs, UAB
2022 – present Science Policy Graduate Certificate Program Director, UAB
2023 – present Chair, Graduate Affairs & Curriculum Committee
2021 – present Faculty mentor for Dr. Cindy Tant, UAB Biology Assistant Professor
2019 – present Biology Faculty Promotion and Tenure Committee, UAB
2023 – 2024 Biology Department Open Tenure TT Faculty Searches, Member, UAB
2016 – 2022 Graduate Student Affairs Committee Member, UAB
2015 – 2016 Biology of Aging Faculty Search Committee Member, UAB
2014 – 2020 Biology Department Curriculum Committee Member, UAB
2014 – 2020 Biology Department Honors Program Committee Member, UAB
2013 – 2014 Biology Department Microbiology TT Faculty Search Committee Member, UAB
2018 – 2019 Biology Department Facilities Committee Chair, UAB
2013 – 2017 Biology Department Facilities Committee Member, UAB
2012 – 2013 Biology Department Chair Search Committee Member, UAB
2012 – 2013 Graduate Student Affairs Committee Member, UAB
2009 – 2012 Biological Sciences Graduate Committee, NDSU
2009 – 2012 Library Committee, NDSU
2007 – 2009 Faculty Search Committees (Physiological Genomicist and Cell Biologist), NDSU
2008 – 2010 Organizer, *Darwin Day*, NDSU
2007 – 2010 Faculty advisor for Senior Capstone Course, NDSU

EXTRAMURAL SERVICE

2018 – present Co-Leader, Alabama Scholars Strategy Network (AL-SSN)
2020 – present Editorial Board Member, Marine Biotechnology
2018 – 2019 Special Issue Coordinator, Comparative Biochemistry and Physiology, Part A, International Congress of Fish Biology Conference Contributions
2017 – 2018 Special Issue Coordinator, Comparative Biochemistry and Physiology, Part C, 8th Aquatic Animal Models of Human Disease Conference Contributions (2017-2018)

2017 – 2018	Clinical Biosafety Services, Outside IBC Reviewer
2016 – present	USDA, NIFA & NIFA AQUA Grant Review Panelist
2014 – present	Review Editor, *Frontiers in Experimental Endocrinology*
2010 – present	Grant Review Panelist - NSF IOS, NSF GRFP, USDA, DoD
2003 – present	Ad hoc reviewer: *General and Comparative Endocrinology*, *Comparative Biochemistry and Physiology*, *Transgenic Research*, *North American Journal of Aquaculture*, *Development, Genes and Evolution*, *American Journal of Physiology*, *Journal of Experimental Biology*, *British Journal of Nutrition,* National Science Foundation, National Institutes of Health, and United States Department of Agriculture
2017 – 2018	Host/Organizer for 8th Aquatic Animal Models of Human Disease Conference
2016 – present	International Research Committee, International Society for Fish Endocrinology
2014 – present	Co-Chair, DCE Gorbman Student Competition, Society of Integrative and Comparative Biology (SICB)
2014 – 2018	Advisory Board, 7th-9th Aquatic Animal Models of Human Disease Conference
2014 – 2017	Symposium Organizer, North American Society for Comparative Endocrinology, June 2015, June 2017
2013 – 2014	Chair, Metabolic Disease Models Symposium, 7th Aquatic Animal Models of Human Disease Conference
2012 – 2013	Chair, Growth and Metabolism Symposium, 6th Aquatic Animal Models of Human Disease Conference
2011 – 2014	Member, Broadening Participation Committee, Society for Integrative and Comparative Biology
2010 – 2013	Chair, Student/Postdoc Affairs Committee, Society for Integrative and Comparative Biology
2008 – 2010	Judge, Best Student Paper, Society for Integrative and Comparative Biology & American Fisheries Society

COMMUNITY OUTREACH & SERVICE

2017 – 2019	Member, Education and Workforce Training Committee, Mayor Randall Woodfin Transition Committee, City of Birmingham
2012 – present	Founder, Organizer/Co-organizer, UAB Darwin Day
2014 – present	Summer CORD Faculty Mentor (High School and Community College students), UAB
2015 – present	Science Education Mentorship Program Leader, Birmingham City Public Schools: Phillips Academy, Avondale Elementary, Putnam Middle, Hayes Middle, Woodlawn High School (in conjunction with Jones Valley Teaching Farm), UAB
2013 – 2018	Communications Director & Vice-President, Southside Ball Association, Birmingham Alabama
2013 – present	Science Fair Mentorship Organizer (inner city Birmingham city school outreach), UAB
2012 – present	Organizer, Annual Darwin Day Celebration, UAB
2017 – present	Education and Workforce Training Committee, Mayor Randall Woodfin, City of Birmingham
2009 – 2012	Faculty mentor, Mississippi Valley State University student research internship, NDSU
2008 – 2010	Organizer, Annual Darwin Day Celebration, NDSU
2008 – 2012	Faculty mentor, North Dakota Governor's School, NDSU
2008 – 2010	Faculty mentor, COBRE Center for Protease Research, NDSU
2008 – 2012	Judge, Sullivan Junior High School Science Fair, NDSU
2007 – 2008	Workshop Leader, Expanding Your Horizons, an annual science and mathematics workshop conference for junior high school women at NDSU

TEACHING EXPERIENCE (DIDACTIC COURSES)

Courses Taught at UAB (100-400 courses are UG level, 500-700 courses are G level)

- Comparative Developmental Biology, BY 475/675 (~75 students, 3 credit hours)
- Issues in Science Policy, BY 225 (~ 50 students, 3 credit hours)
- Science Policy, BY 617/MPA 617 (~10 students, 3 credit hours)

- Evolutionary Processes, BY 429/491/629 (~70 students, 3 credit hours)
- Introductory Biology I, BY 123 (for majors, ~200 students, 4 credit hours)
- Biological Data Analysis & Interpretation, BY 243/555 (online course for majors, ~100 students, 3 credit hours)
- Science Mentoring Outreach, BY 495/695

Courses Taught at NDSU (100-400 courses are UG level, 500-700 courses are G level)

- Developmental Biology, ZOO 482/682 (~60 students, 3 credit hours)
- Animal Physiology, ZOO 460/660 (~90 students, 3 credit hours)
- Scientific Integrity, BIOC 720 (~15 students, 1 credit hour)
- Growth Biology, ANSC/ZOO 730 (~10 students, 3 credit hours)

CURRICULUM & COURSE DEVELOPMENT

- Designed Graduate Certificate Program in Science Policy in collaboration with Dr. Peter Jones (Assistant Professor, Public Administration and Political Science Department, UAB) - https://www.uab.edu/cas/biology/graduate/graduate-certificate-in-science-policy
- Designed course plans for 3 new graduate courses for the Science Policy certificate
  - BY617/MPA617 – Science Policy (taught 3 times)
  - BY647/MPA647 – Contemporary Political Issues in Science Policy (taught once)
  - BY677 – Design Thinking to Solve Problems Through Science Policy (taught 3 times)
- Designed course plan for 1 Blazer Core course in collaboration with Dr. Rob Blanton (Professor and Chair, Public Administration and Political Science Department, UAB)
  - BY/MPA 225 – Contemporary Political Issues in Science Policy (taught twice)
- Designed course plan for the Biological Data Interpretation and Analysis course that is an online course designed to introduce underclassmen to data analysis and statistics. This class is a required course for our biology majors.
  - BY 245/555 – Biological Data Interpretation and Analysis (taught 3 times)

MAJOR RESEARCH INTERESTS

Using integrative approaches and transdisciplinary training my program focuses on answering this broad question: *what molecular mechanisms regulate organismal growth in animals*? Our work mostly uses skeletal muscle as a model to understand continual and pre-determined growth using comparative genomic, epigenomic, molecular, and cell biology approaches. For the past seventeen years, I have maintained an active and funded research program utilizing several animal models, including many fish species, insects, and rodents to tackle understanding various aspects of organismal growth regulation. Currently, my lab is supported by two federal awards focusing on muscle growth regulation in the context of maternal programming in aquaculture (USDA NIFA AFRI - #2023-67016-39339) and sex-biased growth and aging phenotypes across animals (NSF BII DBI-2213824 - IISAGE).

STUDENTS/FELLOWS TRAINED (S – Spring, Su – Summer, F – Fall)

High School Students (total = 8)

- Brittany Kuhn, F11-S12 Mandan High School, ND; Now: Personal Care Attendant
- Ian Black, F14-S15, Jefferson County International Baccalaureate, Birmingham
- Carla Lewis, Su15, Ramsay High School, Birmingham
- Emmanuelle LaMontagne, Su22 & Su23, Moutain Brook High School; Now: Freshman at University of Vermont, Biomedical Engineering major
- Jacob Knowles, S23, McAdory High School; Now: Freshman at Yale University, pre-med major
- Erik Ledvina, F23, S24, Indian Springs School

- Avery Biga, F23, S24, Su24, Indian Springs School
- Alex Hage, Su24, Indian Springs School

Undergraduate Students (total = 42):

UAB

- Jenna Harris, 2014
- Kayleigh Cantrell, 2014
- Akash Lohia, 2014
- Desiree Leverette, 2014
- Timber Wulff, 2015-2016
- Diego Roman, 2013-2016
- Nicholas Harrison, 2015-2016
- Alice Speake, 2016
- Adam Smith, 2015-2016
- Sonja Haines, 2016-2017
- Michaela O'Neill, 2017
- Landen Ballew, 2017-2018
- Lauren Amber Requena, 2016-2017
- JeanJu Lee, 2017
- Joel "Coalie" Maples, 2018
- Orielle Caudle, 2019-2020
- Damaris Sarabia, 2020-2022
- Kanesha Humphrey (Oakwood University), 2021
- Sam Lee, 2022
- Benjamin Gregory, 2022-2023
- Savvy Fanter, 2022-2023
- Mylah Flowers, 2022
- Michelle Diacona, 2022
- Timmia Robinson, 2021-2023
- Ibukun Tella, 2021-2024
- Charlotte Menko, 2023
- Yashi Das, 2024
- Blaitney Holcomb, 2024
- Dylan Higginbotham, 2023-present
- Addesyn Aderogba, 2023-present
- Nimrat Saini, 2024
- Maddie Hageman (Birmingham Southern College), 2024

NDSU

- Katrina Lybeck, 2009
- Jaime Jenson, 2009
- Lauren Sager, 2010
- Brooke Franzen, 2010-2012
- Gladys Mitchell, 2009
- Delci Christensen, 2011-2012
- Elizabeth Braschayko, 2007-2011
- Amanda Gussias, 2009
- Nicholas Galt, 2007-2009
- Zach Fowler, 2010-2011
- Ethan Remily, 2009-2011
- Matthew Charging, 2011-2012
- Samantha Billing, 2008-2011
- Casey Bateman, 2011
- Sinibaldo Romero, 2010-2012

UWM

- Jessica Meyer, 2005 – 2007
- Crystal Simchick, 2005 - 2007

Postbaccalaureate Students (total = 2):

1. Kevin Lee (2018-2019)
2. Kate Gonda (2024-current, PREP Scholar)

Graduate Students (total 13):

1. Ben Meyer, MS student (08/10-08/12; M.S. awarded; current: high school science teacher, MN)
2. Jacob M. Froehlich, PhD student (08/09-08/14; Ph.D. awarded; DVM awarded 2018 from Johns Hopkins Veterinary School; current: clinical veterinarian)
3. Nicholas Galt, PhD student (08/09-08/14; Ph.D. awarded; current: associate professor, Valley City State University, ND)
4. Mary N. Latimer, PhD student (08/13-12/18; Ph.D. awarded; current position: postdoctoral scientist)
5. Lauren Amber Requena, MS student (08/17-04/19; M.S. awarded; current position: PhD student UAB Pathobiology)
6. Ross M. Reid, PhD student, (08/15-12/20; Ph.D. awarded; current position: postdoctoral researcher, USDA ARS)
7. Khalid Freij, PhD student (08/17-12/23, Ph.D. awarded; current position: Bioinformatician II, UAB)
8. Christel Whitehead, PhD student (08/20 – present)

9. Michael Addo, PhD student (01/22 – present)
10. Noor Yousuf, MS student (08/23 – present)
11. Addesyn Aderogba, ABM Plan I MS student (06/24 – present)
12. Abby Quimby, MS student (08/24 – present)
13. Ireen Lin, PhD student (08/24 – present)

Postdoctoral Fellows (total = 2):

1. Serhat Turkmen, Ph.D. (10/19-06/22; current: postdoctoral scientist, UAB SOM)
2. Eric Randolph, Ph.D. (4/23 – present)

Graduate Student Thesis Committee Participation:

1. Brittany Zeigler, Zoology, MS Student, Mentor: Dr. Mark Sheridan (NDSU)
2. Alison Hagermeister, Zoology, MS Student, Mentor: Dr. Mark Sheridan (NDSU)
3. James Magolski, Animal and Range Science, MS Student, Mentor: Dr. Casey (NDSU)
4. Michael Caruso, Cell & Molecular Biology, PhD student, Mentor: Dr. Mark Sheridan (NDSU)
5. Andrea Hanson, Cell & Molecular Biology, PhD student, Mentor: Dr. Mark Sheridan (NDSU)
6. Elizabeth Ellens, Zoology, MS student, Mentor: Dr. Mark Sheridan (NDSU)
7. Heather Bergan, Cell & Molecular Biology, PhD student, Mentor: Dr. Mark Sheridan (NDSU)
8. Chad Walock, Cell & Molecular Biology, PhD student, Mentor: Dr. Mark Sheridan (NDSU)
9. Lindsey Norbeck, Zoology, PhD student, Mentor: Dr. Mark Sheridan and Dr. Wendy Reed (NDSU)
10. Divikar Prakash, Oral Biology, MS student, Mentor: Dr. Amjad Javed (UAB)
11. Corey Cates, Biology, MS student, Mentor: Dr. Dan Warner (UAB)
12. Tandy Petrov, Biology, PhD student, Mentor: Dr. Nicole Riddle (UAB) – MS awarded
13. Adele Fowler, Biology, PhD student, Mentor: Dr. Steve Watts (UAB)
14. Katie Corrick, Exercise Science, MS student, Mentor: Dr. Marcus Bamman (UAB)
15. Huixin Wu, Graduate Biomedical Sciences, Mentor: Dr. Trygve Tollefsbol (UAB)
16. Heidi Johnson, Biology, MS student; Mentor: Dr. Nicole Riddle (UAB)
17. Doni Thingjam, Biology, PhD student; Mentor: Dr. Shahid Mukhtar (UAB) – moved to Clemson
18. Binoop Mohan, Biology PhD student, Mentor: Dr. Shahid Mukhtar (UAB)
19. Jinbao Liu, Biology PhD student, Mentor: Dr. Shahid Mukhtar (UAB)
20. Sarah Shainker Connelly, Biology PhD student, Mentor: Dr. Stacy Kruger-Hadfield (UAB)
21. James Walts, Biology, MS Student, Mentor: Dr. Nicole Riddle (UAB)
22. Abigail Fox, Biology, MS Student, Mentor: Dr. Nicole Riddle (UAB)
23. Jade Mellor, Biology, PhD Student, Mentor: Dr. Greer Dolby (UAB)

Graduate and Postbaccalaureate Student Awards (2019-2024)

Khalid Freij (Ph.D. – graduated December 2023)

1. UAB Travel Award, Department of Biology ($400), 2022
2. North American Society for Comparative Endocrinology Travel Award, 2019

Michael Addo (Ph.D. Student)

1. UAB Harold Martin Outstanding Research Development Award ($1,000), 2024
2. Neal Jorgenson Travel Award, Plant and Animal Genome 31 Conference ($500), 2024
3. UAB Travel Award, Department of Biology ($400), 2022

Christel Whitehead (Ph.D. Student)

1. UAB Daniel Jones Excellence in Graduate Studies ($1,000), 2024
2. Grant-in-aid-Research Award, Sigma Xi ($5,000), January 2024
3. UAB Travel Award, Department of Biology, ($400), 2023

Ross Reid (Ph.D. Awarded 2020)

1. North American Society for Comparative Endocrinology Travel Award, 2019
2. Ireland Travel Scholarship, International Congress on the Biology of Fish, 2018

Keven Lee (Postbaccalaureate, 2019)

1. North American Society for Comparative Endocrinology Travel Award, 2019

Mary Latimer (Ph.D. Awarded 2018)

1. UAB Nathan Shock Center Symposium 1st Place Pre-Doctoral Poster Competition, 2018

2. UAB Darwin Day 1st Place Pre-Doctoral Poster Competition, 2018
3. Travel award from the International Society for Fish Endocrinology ($398), 2018
4. Travel Award, American Fisheries Society ($900), 2018
5. UAB Nutrition Obesity Research Center; T-32 Pre-doctoral Fellowship – Tuition ($10,895 /yr) and Stipend ($26,000/yr), 2017-2018
6. Nationwide CIRTL Associate, 2017
7. UAB Nutrition Obesity Research Center; T-32 Pre-doctoral Fellowship – Tuition ($10,895 /yr) and Stipend ($26,000/yr), 2016-2017
8. Charlotte Magnum Student Support, SICB ($500), 2016
9. UAB Nutrition Obesity Research Center; T-32 Pre-doctoral Fellowship – Tuition ($10,895 /yr) and Stipend ($26,000/yr), 2015-2016
10. Carolyn Ireland Travel Award ($1,000), 2015
11. Chateaubriand STEM Fellowship Scholar ($5,300), 2015
12. Charlotte Magnum Student Support, SICB ($500), 2015
13. Charlotte Magnum Student Support, SICB ($140), 2014

Ross Reid (Ph.D. Awarded 2019)
1. Travel Award, American Fisheries Society ($900), 2018
2. Carolyn Ireland Travel Award ($1,000), 2017
3. UAB Travel award, Department of Biology ($400), 2017

Jacob M. Froehlich (Ph.D. Awarded 2014)
1. Travel award from the UAB Department of Biology ($400), 2014
2. UAB Outstanding Graduate Student, PhD, UAB CAS, 2014
3. Charlotte Magnum Student Support, SICB ($500), 2014
4. UAB Travel award, Department of Biology ($400), 2013
5. Charlotte Magnum Student Support, SICB ($500), 2013

Nick Galt (Ph.D. Awarded 2014)
1. Charlotte Magnum Student Support, SICB ($500), 2014
2. Charlotte Magnum Student Support, SICB ($500), 2014
3. UAB Travel award, Department of Biology ($400), 2016
4. CIRTL Associate Award, 2014
5. CIRTL Practitioner Award, 2013

Sonya Haines (B.S. Awarded 2019, University of Alabama)
1. UAB Most Promising Scientist Award, Summer CORD Program, 2016

RESEARCH GRANT SUPPORT

Current Extramural Funding

- United States Department of Agriculture, National Institute for Food and Agriculture, AFRI-2023-67016-39339; Biga (PI), Cleveland (Co-PI); 04/1/2023 – 03/30/2028. Just Keep Gilling: Dietary and genetic strategies to improve hypoxia tolerance in rainbow trout. ($650,000 direct costs; $25,000 subaward)
- National Science Foundation, Biology Integration Institutes, NSF BII DBI-2213824 – IISAGE; Riddle (PI), Biga and 9 others (Co-PI); 9/1/2022 – 08/30/2027. BII: Integration Initiative: Sex, Aging, Genomics, and Evolution (IISAGE). ($12,500,000 total direct costs; $765,000 to PB)
- United States Department of Agriculture, AFRI Conference Grants, Duan (PI), Biga and Riddle (Co-PI), 2024 – 2025. “Genomics and Epigenomics of Aging.” Workshop to be hosted at Plant & Animal Genome 32 (PAG32). (total budget $18,500)

Previous Extramural Funding

- United States Department of Agriculture, National Institute for Food and Agriculture, AFRI-2018-67015-27478; Biga (PI), Cleveland (Co-PI); 04/01/2018 – 03/30/2023. Improving rainbow trout

growth performance through optimization of diet-epigenetic interactions. ($500,000 direct costs; $25,000 subward)

- American Association for the Advancement of Science (AAAS), AWD-000525994; Biga (PI); 08/15/2019 – 08/14/2021. Science & Technology Policy Fellowship. ($236,699)
- National Institutes of Health, Office of Research Infrastructure Programs, R13OD021974; Biga (PI); 04/01/2016 – 03/31/2017. The 8th Aquatic Models of Human Disease Conference. ($10,000)
- National Institutes of Health, National Institute of Arthritis and Musculoskeletal and Skin Diseases, R03AR055350; Biga (PI); 07/01/2009 – 06/30/2012. A comparative approach to evaluate muscle growth in an indeterminate growth model. ($214,500 direct costs)
- Wisconsin Sea Grant, University of Wisconsin at Milwaukee, Goetz (PI), Biga (Co-PI); 08/01/2006 – 07/31/2009. Development of Yellow Perch Broodstocks for Selective Breeding. ($342,934 direct costs)
- United States Department of Agriculture, NRICGP, Postdoctoral Grant, Biga (PI), Goetz (Mentor); 07/01/2004 – 06/30/2005. The zebrafish (*Danio rerio*) and giant danio (*Danio aequipinnatus*) as models for studying determinate and indeterminate growth in fish. Marine Biologica Laboratory, Woods Hole, MA. ($89,000 direct costs)

Previous Intramural Funding

- UAB Faculty Development Grant; Biga (PI); 09/01/2019 – 08/30/2020. Diet-epigenetic interactions regulating transgenerational zebrafish growth. ($10,000)
- UAB Faculty Development Grant; Biga (PI); 2016 – 2017. The characterization of novel growth hormone signaling to regulate indeterminate myogenesis. ($10,000)
- UAB Nathan Shock Center; Biga (PI); 2016-2017. Long-term treatment with Teneurin C-terminal Associated Peptide (TCAP) improves metabolic efficiency and aging pathologies by regulating glucose metabolism and energy output. ($25,000)
- UAB Center for Teaching & Learning, Teaching Innovation and Development Award. Biga (PI), Fisher (Co-PI); 2015 – 2016. Using Team Learning and Student-Generated Digital Videos to Increase Student Engagement in STEM. ($4,092)
- UAB Nutrition Obesity Research Center, Pilot/Feasibility Grant. Renewal. Biga (PI); 2014 – 2015. Role of amino acids in the epigenetic regulation of muscle growth in determinate and indeterminate growing paradigms. ($25,000)
- UAB Faculty Development Grant, Biga (PI); 2013 – 2014. The characterization of epigenetic regulation of indeterminate myogenesis and muscle atrophy. ($7,000)
- UAB Nutrition Obesity Research Center, Pilot Grant. Biga (PI); 2013 – 2014. Role of amino acids in the epigenetic regulation of muscle growth in determinate and indeterminate growing paradigms. ($25,000)
- NDSU National Science Foundation/NDSU Advance/FORWARD. Biga (PI); 2011-2012. Variation in myostatin promoter sequences within the *Salmonidae* family demonstrates differential regulation of this anti-growth factor as an adaptive mechanism in regard to stress. ($30,000)
- NDSU National Science Foundation/ND EPSCoR, Biga (PI); 2010 – 2011. Novel regulation of muscle satellite cell activation in an indeterminate growth model. ($30,000)
- NDSU National Science Foundation/NDSU Advance/FORWARD Travel Grant, Biga (PI); 2010 – 2011. ($1,500)
- NDSU National Institutes of Health/COBRE, Center for Protease Research, Biga (PI); 2010 – 2012. The role of MMPs in myostatin activation in skeletal muscle of obese and non-obese mice in response to high-fat diet. ($144,000)
- NDSU National Science Foundation/NDSU Advance/FORWARD Course Release Grant, Biga (PI); 2010 – 2011. ($6,000)

- NDSU North Dakota INBRE. Seed Project Funding, Biga (PI), 2009 – 2010. The role of myostatin in immune system regulation. ($5,000)
- UWM National Institutes of Health, National Institute of Environmental Health Sciences, Marine and Freshwater Biomedical Sciences Center. Seed Grant, Biga (PI); 2006 – 2007. Characterization of the giant danio as a metabolic muscle growth model organism: a comparative study between giant danio and mice. ($15,000)

Fellowships

- EPSCoR Fellowship for outstanding minority (female) scientists in molecular biology. University of Idaho. 2000-2001 **(**$15,000)

Pending Extramural Grant Proposals:

- National Science Foundation, eMB, Dolby (PI), Biga (Co-PI); 2024 – 2027. eMB: Hierarchical integration of multi-omic elements underlying complex phenotypes through machine learning advances." ($829,717 total; $118,500 to Biga)
- Hevolution Foundation Scientific Conference Grant. Duan (PI), Biga and Riddle (Co-PI); 2024 – 2025. Genomics and Epigenomics of Aging" International Plant & Animal Genome Conference Workshop Grant. (total budget $10,000)

Recent Extramural Grant Proposals (2019-present; Not Funded):

- National Science Foundation, RaMP- Research and Mentoring Postbac, Biga (PI), 2023 – 2027. RaMP: A4Alabama: Strengthening and diversifying the regional STEM workforce through engaging research tackling a changing biological world in a social context. ($2,999,111)
- National Science Foundation, IntBIO. Sandel (PI), Biga and Culumber (Co-PI), 2023 – 2028. IntBIO: Collaborative Research: Supergene stoichiometry: Viviparous fishes as a model for understanding non-mendelian determinants of growth, puberty, and aging. (total budget $2.4M; $594,922 to Biga)
- United States Department of Agriculture, Climate Change Initiative: FY22 Funding Cycle, Cleveland, Leeds, Biga (PIs), 2022 – 2023. Integrated Research Approaches for Improving Production Efficiency in Rainbow Trout. ($500,000)
- National Science Foundation DUE-IUSE-Engaged Student Learning: Level III, Biga (PI), Raut, Morris, Harris, and K. Mukhtar (Co-PIs), 2022 – 2027. STEAM-con: Developing convergent STEAM curricula to prepare students for the challenges of the 21st century. ($1,307,762)
- National Science Foundation, EPSCoR Track II, Sandel (PI), Biga, Piller, Chang, and Schlupp (Co-PIs), 2020 – 2023. Genomics Underlying Piscine Invasiveness (GUPI): The Feral Guppy as an Emerging Model for Adaptive Physiology, Behavior, and Morphogenesis. (Total budget $4,385,106; UAB-$1,526,862)
- Egg Nutrition Center, Biga (PI), Turkmen (Co-PI), 2021 – 2024. Transgenerational effects of parental choline intake on offspring metabolic and cardiovascular health via epigenetic mechanisms. ($300,000
- San Diego Nathan Shock Center Pilot Grant Program, Biga (PI), Riddle (Co-PI), 2021 – 2022. Identifying cell-specific genomic instability changes in aged muscle of male-female fish and flies. ($15,000
- CAS Interdisciplinary Grant Program, Biga (PI), Jones, Biga, March (Co-PIs), 2021 – 2022. Evaluating the effectiveness of an Inclusive, Integrative Education Implementation in STEM and non-STEM CAS classrooms on increasing student sense of belonging and STEM literacy. ($30,000)
- National Science Foundation, IOS, Biga (PI), Turkmen (Co-PI), 2021 – 2024. Epigenetic effects on metabolic physiology: testing the role of parental diet. ($584,488)

PUBLICATIONS (underlined denoted undergraduate student contributor)

Peer-Reviewed

1. **P.R. Biga***, J.E. Duan*, T.E. Young*, J.R. Marks*, A. Bronikowski*, L.P. Decena*, E.C. Randolph*, A.G. Pavuluri*, G. Li*, Y. Fang*, G.S. Wilkinson*, G. Singh, N.T. Nigrin, E.N. Larschan, A.J. Lonski, and N.C. Riddle. 2024. Hallmarks of Aging: A User's Guide for Comparative Biologists. *Ageing Research Reviews,* 104:102616 *Co-first authors. https://doi.org/10.1016/j.arr.2024.102616
2. Freij, K.W., B.M. Cleveland, and **P.R. Biga**. 2024. Remodeling of the epigenetic landscape in rainbow trout, *Oncorhynchus mykiss*, offspring in response to maternal choline intake. *Comparative Biochemistry and Physiology, Part D. Genomics and Proteomics.* https://doi.org/10.1016/j.cbd.2024.101348
3. Reid, R.M., S. Turkmen, B.M. Cleveland, and **P.R. Biga**. 2024. Direct actions of growth hormone in rainbow trout, *Oncorhynchus mykiss*, skeletal muscle cells *in vitro*. *Comp. Biochem. and Phys., Part A. Mol. and Int. Phys*. 297:111725. https://doi.org/10.1016/j.cbpa.2024.111725
4. Freij, K.W., B.M. Cleveland, and **P.R. Biga**. 2024. Maternal dietary choline levels cause transcriptome shifts due to genotype-by-diet interactions in rainbow trout (*Oncorhynchus mykiss). Comp. Biochem. Phys. D. Genomics and Proteomics*. doi:10.1016/j.cbd.2024.101193
5. Riddle, N.C., **P.R. Biga**, A.M. Bronikowski, J.R. Walters, G.S. Wilkinson, and IISAGE Consortium. 2023. Comparative analysis of animal lifespan. *GeroScience*. https://doi.org/10.1007/s11357-023-00984-2.
6. Hogg, D.W., A.L. Reid, T.L. Dodsworth, Y. Chen, R.M. Reid, M. Xu, M. Husic, **P.R. Biga**, A. Slee, L.T. Buck, D. Barsyte-Lovejoy, M. Locke, and D.A. Lovejoy. 2022. Skeletal muscle metabolism and contraction Skeletal muscle metabolism and contraction performance regulation by teneurin C-terminal-associated peptide-1. Front. Physiol. 13:1031264. doi: 10.3389/fphys.2022.1031264
7. Bronikowski, A. M., Meisel, R. P., **Biga, P. R.**, Walters, J. R., Mank, J. E., Larschan, E., Wilkinson, G. S., Valenzuela, N., Conard, A. M., de Magalhães, J. P., Duan, J., Elias, A. E., Gamble, T., Graze, R. M., Gribble, K. E., Kreiling, J. A., and Riddle, N. C. (2021). Sex-specific aging in animals: Perspective and future directions. *Aging Cell*, 00, e13542. https://doi.org/10.1111/acel.13542
8. Reid, R.M., A.L. Reid, D.A. Lovejoy, and **P.R. Biga**. 2021. Teneurin C-Terminal Associated Peptide (TCAP)-3 Increases Metabolic Activity in Zebrafish. *Frontiers in Marine Science*. 7. Doi: 10.3389/fmars.2020.591160
9. Cleveland, B.M., T.D. Leeds, M.J. Picklo, C. Brentesen, J. Frost, and **P.R. Biga**. 2020. Supplementing rainbow trout (*Oncorhynchus mykiss*) broodstock diets with choline and methionine improves growth in offspring. *Journal of the World Aquaculture Society*. 1-16. Doi: 10.1111/jwas.12634
10. Latimer, M.N., R.M. Reid, **P.R. Biga**, and B.M. Cleveland. 2019. Glucose regulates protein turnover and growth-related mechanisms in rainbow trout myogenic precursor cells. *Comp. Biochem. Physiol. A*. 232:91-97. Doi:10.1016/j.cbpa.2019.03.010. PMID: 30904682
11. Reid, R.M., K.W. Freij, J.C. Maples, and **P.R. Biga**. 2019. Teneurins and teneurins C-terminal associated peptide (TCAP) metabolism: What's known in fish? *Front. Neurosci.* 13:177. Doi:10.3389/fnins.2019.00177. PMID: 30890915
12. Latimer, M.N., K.W. Freij, B. Cleveland, and **P.R. Biga**. 2018. Physiological and molecular mechanisms of methionine restriction. *Frontiers in Endocrinology Experimental Endocrinology* doi: 10.3389/fendo.2018.00217. PMID: 29780356
13. Reid, R., A. D'Aquila, and **P.R. Biga**. 2018. The validation of a sensitive, non-toxic in vivo metabolic assay applicable across zebrafish life stages. 2018. *Comp. Biochem. Physiol. C. Toxicol. Pharmacol.* 208:29-37. Doi: 10.1016/j.cbpc.2017.11.004. PMID: 29162498
14. Latimer, M., B.M. Cleveland, and **P.R. Biga**. 2018. Dietary Methionine Restriction: Effects on Glucose Tolerance, Lipid Content and micro-RNA composition in the muscle of Rainbow Trout. *Comp. Biochem. Physiol. C.* (*E-pub) doi: 10.1016/j.cbpc.2017.10.012* PMID: 29100953

15. Galt, N.J., J.M. Froehlich, S.D. McCormick, and **P.R. Biga**. 2018. A comparative evaluation of crowding stress on muscle HSP90 and myostatin expression in salmonids. *Aquaculture*. 483:141-148. *doi: 10.1016/j.aquaculture.2017.10.019* PMID: 27444129
16. **Biga, P.R.**, M.N. Latimer, J.M. Froehlich, J.C. Gabillard, and I. Seiliez. 2017. Distribution of H3K27me3, H3K9me3, and H3K4me3 along autophagy-related genes highly expressed in starved zebrafish myotubes. *Biol. Open* 6(11):1720-1725. PMID: 29025701
17. Latimer, M.N., N. Sabin, A. Le Cam, I. Seiliez, **P. Biga**, and J.C. Gabillard. 2017. miR-210 expression is associated with methionine-induced differentiation of trout satellite cells. *J Exp. Biol*. 220(Pt 16):2932-2938. *doi:10.1242/jeb.154484* PMID: 28576820
18. Galt, N.J., S.D. McCormick, J.M. Froehlich, and **P.R. Biga**. 2016. A comparative examination of cortisol effects on muscle myostatin and HSP90 gene expression in salmonids. *General and Comparative Endocrinology.* 237:19-26. doi:10.1016/j.gcen.2016.07.019 PMID: 27444129
19. Seiliez, I., J.M. Froehlich, L. Marandel, J.C. Gabillard, and **P.R. Biga**. 2015. Evolutionary history and epigenetic regulation of the three paralogous *pax7* genes in rainbow trout. *Cell Tissue Research.* 359(3):715-27. *Dec. 10.* PMID: 25487404
20. Allison DB, Antoine LH, Ballinger SW, Bamman MM, **Biga P**, Darley-Usmar VM, Fisher G, Gohlke JM, Halade GV, Hartman JL, Hunter GR, Messina JL, Nagy TR, Plaisance RP, Roth KA, Sandel MW, Schwartz TS, Smith DL, Sweatt JD, Tollefsbol TO, Watts SA, Yang Y, Zhang J, Austad, S, and Powell ML. 2014. Aging and energetics' 'Top 40' future research opportunities 2010-2013. v1; http://f1000r.es/4ae; *F1000Research*, 3:219 (doi:https://dx.doi.org/10.12688/f1000research.5212.1)
21. Galt, N.J., J.M. Froehlich, E.A. Remily, S.R. Romero, and **P.R. Biga**. 2014. The effects of exogenous cortisol on myostatin transcription in rainbow trout, *Oncorhynchus mykiss*. *Comp. Biochem. Phsyiol. A. Mol Intergr. Physiol*. 175:57-63. PMID: 24875565
22. Picha, M.E., **P.R. Biga**, N. Galt, A.S. McGinty, K. Gross, V.S. Hedgepeth, T.D. Siopes, and R.J. Borski. 2014. Overcompensation of circulating and local insulin-like growth factor-I during catch-up growth in hybrid striped bass (*Morone chrysops* X *Morone saxatilis*) following temperature and feeding manipulation. *Aquaculture*. 428-429:174-183
23. Froehlich, J.M., I. Seiliez, J.C. Gabillard, and **P.R. Biga**. 2014. Preparation of Primary Myogenic Precursor Cell/Myoblast Cultures from Basal Vertebrate Lineages. *Journal of Visualized Experiments.* Apr 30;(86). doi:10.3791/51354. PMID: 24835774
24. Goetz, F.W., A. Jasonowicz, R. Johnson, **P. Biga**, G. Fischer, and S. Sitar. 2014. Physiological differences between siscowet and lean trout morphotypes: Are these metabolotypes? *Canadian Journal of Fisheries and Aquatic Sciences.* 71(3):427-435
25. Galt, N.J., J.M. Froehlich, B.M. Meyer, F.T. Barrows, and **P.R. Biga**. 2014. High-fat diet reduces local myostatin-1 paralog expression and alters skeletal muscle lipid content in rainbow trout, *Oncorhynchus mykiss*. *Fish Physiology and Biochemistry.* 40(3):875-86. PMID: 24264425
26. Gabillard, J.C., **P.R. Biga**, P.Y. Rescan, and I. Seiliez. 2013. Revisiting the paradigm of myostatin in vertebrates: insights from fishes. *Gen. Comp. Endocrinol.* 194C:45-54. PMID: 24018114
27. Froehlich, J.M., Z.G. Fowler, N.J. Galt, D.L. Smith Jr., and **P.R. Biga**. 2013. Sarcopenia and piscines: the case for indeterminate-growing fish as unique genetic model organisms in aging and longevity research. *Frontiers of Genetics in Aging.* 4:159. PMID: 23967015
28. Froehlich, J.M., N.J. Galt, M.J. Charging, B.M. Meyer, and **P.R. Biga**. 2013. *In vitro* indeterminate teleost myogenesis appears to be dependent on Pax3. *In vitro Cellular and Developmental Biology-Animal*. 49(5):371-385. PMID: 23613306
29. **Biga, P.R.**, J.M. Froehlich, K.J. Greenlee, N.J. Galt, B.M. Meyer, and D.J. Christensen. 2013. Gelatinases impart susceptibility to high-fat diet-induced obesity in mice. *Journal of Nutritional Biochemistry*. 24(8):1462-8. PMID: 23465590
30. Meyer, B.M., J.M. Froehlich, N.J. Galt and **P.R. Biga**. 2013. Inbred strains of zebrafish exhibit variation in growth performance and myostatin expression following fasting. *Comparative Biochem. Physiol. A*. 164(1):1-9. PMID: 23047051

31. Rosauer, D.R., **P.R. Biga**, S. Lindell, F.P. Binkowski, B. Shepherd, C. Simchick, F.W. Goetz. 2011. Development of yellow perch (*Perca flavescens*) broodstocks: physical characteristics after grow-out of different strains of yellow perch. *Aquaculture*. 317:58-66.
32. Lyons, J.A., Haring, J.S., and **Biga, P.R.** 2010. Myostatin expression, lymphocyte population, and potential cytokine production correlate with predisposition to high-fat diet-induced obesity in mice. *PLoS One*. 5(9): e12928. PMID: 20877574.
33. **Biga, P.R.** and J.L. Meyer. 2009. Growth hormone differentially regulates growth and growth-related gene expression in closely related fish species. *Comp Biochem Phys. A*. 154:465-473. PMID: 19654052.
34. **Biga, P.R.** and F.W. Goetz. 2006. Zebrafish and giant danio as models for muscle growth: Determinate versus indeterminate growth as determined by morphometric analysis. *Am J Physiol: Reg Integ Comp Physiol*. 291:R1327-R1337. PMID: 16741137.
35. **Biga, P.R**., Roberts S.R., Iliev D.B., McCauley L.A.R., and Goetz F.W. 2005. The isolation, characterization, and expression of a novel GDF11 gene and a second myostatin form in zebrafish, *Danio rerio*. *Comp Biochem Phys. B*. 141:218-230. PMID: 15886039.
36. **Biga, P.R.,** Peterson B.C., Schelling G.T., Hardy R.W., Cain K.D., Overturf K., and Ott T.L. 2005. Bovine growth hormone treatment increased IGF-I in circulation and induced the production of a specific immune response in rainbow trout (*Oncorhynchus mykiss*. *Aquaculture*. 246:437-445.
37. Ettensohn K.M., **Biga P.**, Romano C., Devlin R.H., Roberts S.B. 2004. Genes differentially expressed in growth hormone transgenic salmon. *Biol Bull*. Oct; 207(2):168.
38. **Biga, P.R.**, K.D. Cain, R.W. Hardy, G.T. Schelling, K. Overturf, S.B. Roberts, F.W. Goetz, and T.L. Ott. 2004. Growth hormone differentially regulates myostatin-I and –II and increases circulating cortisol in rainbow trout (*Oncorhynchus mykiss*). *Gen Comp Endocrinol*. 138(1):32-41. PMID: 15242749.
39. Congleton, J.L., **P.R. Biga**, and B.C. Peterson. 2004. Plasma insulin-like growth factor-I in yearling Chinook salmon (*Oncorhynchus tshawytscha*) migrating from the Snake River Basin, USA. *Fish Physiol Biochem*. 29:57-66
40. **Biga, P.R.**, K.D. Cain, R.W. Hardy, K. Overturf, G.T. Schelling, and T.L. Ott. 2004. The effects of recombinant bovine somatotropin (rbST) on tissue IGF-I, IGF-I receptor, and GH mRNA levels in rainbow trout (*Oncorhynchus mykiss*). *Gen Comp Endocrinol*. 135(3):324-333. PMID: 14723884.
41. Peterson, B.C., **P.R. Simpson**, K.D. Cain, R.W. Hardy, G.T. Schelling, and T.L. Ott. 2003. Effects of administration of somatostatin-14 and immunoneutralization of somatostatin on endocrine and growth responses in rainbow trout. *J. Fish Biology*. 63:506-522.

Submitted/In Review

1. Freij, K.W., M.N.T. Addo, L.J. Ballew, I.F. Tella, and **P.R. Biga**. From fins to genes: Deciphering the fish methylome. Submitted to *Reviews in Fish Biology and Fisheries*

In Preparation

1. Freij, K.W., I.F. Tella, and **P.R. Biga**. Maternal diet affects global DNA methylation and transcription in a model fish species. To be submitted to *G3 – Genes|Genomes|Genetics* before December 2024. (90% complete – waiting on final edits from two students who recently graduated)
2. Latimer, M.N., M.N.T. Addo, K.W. Freij, S. Turkmen, M. Crowley, and **P.R. Biga**. Methionine restriction during in vitro myogenesis alters DNA methylation and gene expression of circadian-regulating genes in rainbow trout, *Oncorhynchus mykiss*. To be submitted *PLOS ONE* before December 2024. (75% complete – finalizing results and discussion sections and review for final edits)
3. Randolph, E., K.W. Freij, N. Yousuf, A. Aderogba, and **P.R. Biga**. Metabolic and transcriptomic changes associated with age and sex in zebrafish, *Danio rerio*. In preparation for an invited submission to *Journal of Gerontology – Biological Sciences* special issue “Small Fish Models in Gerontology Research” by October 2024. Editors: Gustavo Duque (EiC), David Karasik, Christopher Winkler, Itamar Harel.

4. Randolph, E., L. Decena, Y. Fang, N. Riddle, **P.R. Biga**, R. Meisel, and E. Duan. Investigation of aging biomarkers across 6 species using transcriptome data. *In preparation for submission – waiting on final data analysis input.*

Non-Peer-Reviewed

1. Rexroad III, C. and P.R. Biga, 2021. Aquaculture is Agriculture Colloquium, White Paper, https://www.usda.gov/topics/farming/aquaculture/aquaculture-agriculture
2. Morris, S., **P.R. Biga**, and J. Williams. 2021. "Growing Connections Across USDA for Innovation in Food Safety and Nutrition." USDA Research and Science Publication, https://www.usda.gov/media/blog/2020/12/18/growing-connections-across-usda-innovation-food-safety-and-nutrition
3. **Biga, P.R**. and C. Rexroad III. 2020. "Serving Savory Seafood for 2020 Holiday Meals." USAD Research and Science Publication, https://www.usda.gov/media/blog/2020/12/01/serving-savory-seafood-2020-holiday-meals
4. Small, B., **P.R. Biga**, B. Peterson, and J. Gutierrez. 2019. "Introduction to the XIIIth ICBF conference special issue." *Comp. Biochem Physiol A*. 236: 110519. (Editorial)
5. **Biga, P.R.** 2019. "How health disparities can be reduced through educational gains and improved coordination of community services." Scholars Strategy Network Policy Brief, https://scholars.org/contribution/how-health-disparities-can-be-reduced-through-educational-gains-and-improved

Book Chapters

1. Cleveland, B., K. Overturf, **P.R. Biga**. 2025. Chapter 14. Nutritional regulation of myogenesis and muscle physiology. Book: Nutrition and Physiology in Fish and Shellfish. Publisher: Elsevier; Editor: Vikas Kumar. ISBN: 978-0-323-90873-3.
2. **Biga, P.R.**, 2009. Muscle Regulation, In: *Current Status of Molecular Research in Aquaculture*. Ed: K. Overturf. Wiley-Blackwell Publishers. ISBN-13: 978-0-8138-1851-1.

PRESENTATIONS

National & International Meetings

1. Aquatic Models of Ageing, Host and Speaker, "Sex differences in metabolic and transcriptomic regulation during aging in the zebrafish, *Danio rerio*." 11th Aquatic Animal Models of Human Disease Conference, October 7, 2024, San Antonio, TX, USA
2. Integrative Action and Crosstalk Between Hormones, Speaker, "Actions of growth hormone in rainbow trout, *Oncorhynchus mykiss*, skeletal muscle cells *in vitro*." 10th International Symposium on Fish Endocrinology, September17, 2024, Baltimore, MD, USA
3. "Just Keep Gilling – Dietary and genetic strategies to improve hypoxia tolerance in rainbow trout." USDA PI Meeting, July 25, 2024, Calgary, Canada
4. Growth and Metabolism Session, Speaker, "Methionine availability during in vitro muscle growth alters circadian-regulating gene expression in rainbow trout (*Oncorhynchus mykiss*)." International Congress on the Biology of Fish, June 26, 2024, Ann Arbor, MI
5. USDA NIFA Impacts on Aquaculture Special Session, Speaker, "Dietary maternal choline intake alters offspring DNA methylation in rainbow trout." Aquaculture America, February 21, 2024, San Antonio, TX
6. Genomics and Epigenomics of Aging Workshop Host and Speaker, "IISAGE: Integration Insitute: Sex, Aging, Genomics & Evolution." Plant and Animal Genomes 31, January 16, 2023, San Diego, CA
7. Aging Models Session, Speaker & Host, "Xiphophorus fishes as models for understanding sex differences in aging." Aquatic Animal Models of Human Disease Conference, October 2022, Woods Hole, MA USA
8. Physiological Insights into Aquaculture, Speaker, "Supplementing rainbow trout broodstock diets with choline and methionine improves offspring growth." Aquaculture Canada and WAS North America 2020 (rescheduled for 2022), August 18, 2022, St. John's, Newfoundland, Canada

9. Stress and Regulation of Appetite Session, Co-Chair & Speaker, "Conserved metabolic and stress regulatory features of teneurin c-terminal associated peptides (TCAP) in fish." International Congress on the Biology of Fishes. (Originally scheduled for June 2020) June 29, 2022, Montpellier, France.
10. Physiological Insights Towards Improved Fish Culture Symposium, 'Methionine Restriction Diminishes Skeletal Muscle Cell Differentiation Through Epigenetic Mechanisms in Rainbow Trout, *Oncorhynchus mykiss*.' World Aquaculture Society, February 2022. San Diego, CA, USA
11. 9th International Society for Fish Endocrinology, 'Conserved metabolic regulatory function of teneurin c-terminal associated peptide (TCAP) in fishes.' June 2020. Guangzhou, China – postponed until September 2022.
12. 5th Biennial North American Society for Comparative Endocrinology, 'Increased metabolic rate by teneurin c-terminal associated peptide (TCAP)-3: A comparative analysis across zebrafish life stages.' May 2019. Gainesville, Florida.
13. World Aquaculture Society, 'Diet-epigenetic interactions regulate muscle proliferation and metabolism in teleosts.' March 2019. New Orleans, Louisiana.
14. American Federation for Aging Research PI Conference, 'Improved metabolic rate by Teneurin C-terminal Associated Peptide (TCAP)-3: A comparative approach across zebrafish life stages.' Santa Barbara, CA, 2018.
15. USDA PI Meeting, 'Improved rainbow trout growth performance through optimization of diet-epigenetic interactions.' Washington, DC, 2018.
16. International Congress of Fish Biology, 'Starvation-induced changes in histone modification along autophagy-related genes.' Calgary, Canada, 2018
17. 18th International Congress of Comparative Endocrinology & 4th Biennial Conference of the North American Society for Comparative Endocrinology Variable organismal growth potential corresponds to differential growth hormone signaling mechanisms., Lake Louise, Alberta, Canada, 2017.
18. Faculty Development Grant Awardee Symposium, UAB, 'The characterization of novel growth hormone signaling to regulate indeterminate myogenesis.' 2017.
19. 8th International Symposium of Fish Endocrinology, 'Establishing muscle-specific miRNAs differentially regulated during methionine restriction.' Gothenburg, Sweden, 2016
20. 8th International Symposium of Fish Endocrinology, 'Growth hormone differentially regulates myostatin in Danio species.' Gothenburg, Sweden, 2016
21. Aquaculture, 'Modeling atrophy through fasting in an in vitro system reveals possible cellular self-renewal.' Las Vegas, NV, 2016
22. Aquaculture '*In vitro* myotubes derived from zebrafish myogenic precursor cells upregulate Pax-3 and -7 following starvation.' Conference, Las Vegas, NV, 2016
23. North American Society for Comparative Endocrinology Conference, 'The effects of glucose on muscle cell proliferation and regulation.' Ottawa, Canada, 2015
24. Society for Integrative and Comparative Biology, 'In vitro myotubes derived from zebrafish myogenic precursor cells upregulate Pax-3 and -7 following starvation.' West Palm Beach, Florida, 2015
25. 7th Aquatic Animal Models of Human Disease Conference, 'Indeterminate growth: a case for pax3 and pax7 in regulating cell fate of muscle progenitor cells.' San Marcos, TX, 2014
26. International Congress of Fish Biology, 'Using comparative biology to understand growth regulation in teleosts,' Edinburgh, Scotland, 2014
27. International Congress of Fish Biology, 'Opposing muscle growth paradigms: a model for understanding the balance between atrophy and hypertrophy.' Edinburgh, Scotland, 2014
28. Society for Integrative and Comparative Biology, 'Opposing muscle growth paradigms: a model for understanding the balance between atrophy and hypertrophy.' Austin, TX, 2014
29. Workshop: Muscle Growth Regulation. Where are we now in regards to myostatin. International Congress of Comparative Endocrinology. Seiliez, I, PR Biga. Barcelona, Spain, 2013
30. Aquaculture, 'Physiological insights towards improving growth performance: from a model organism perspective.' Nashville, TN, 2013
31. 6th Aquatic Animal Models of Human Disease & Midwest Zebrafish Conference, 'Comparative analysis of growth paradigms to understand muscle disease.' Milwaukee, WI, 2013
32. Society for Integrative and Comparative Biology, 'Epigenetic regulation of myogenesis in a growth paradigm-specific manner.' San Francisco, CA, 2013

33. 10th International Congress on the Biology of Fish, 'Plenary: Fish as model organisms: Comparative analysis of differential growth potentials.' Madison, WI, 2012
34. 10th International Congress on the Biology of Fish, 'Inbred strains of zebrafish exhibit variation in growth performance and myostatin expression following fasting.' Madison, WI, 2012
35. 7th International Symposium on Fish Endocrinology. 'The effects of cortisol administration on *Oncorhynchus mykiss* myoblast proliferation and myostatin isoform expression.' Buenos Aires, Argentina, 2012
36. Aquaculture, 'A novel downstream target of myostatin as a focus for understanding the interaction between growth and immunity: Akirin.' San Diego, CA, 2010

Student/Trainee Presentations (*presenter, undergraduate student**)**

1. E. Randolph*, Y. Fang, J.E., Duan, P.R. Biga, and N.C. Riddle. Identifying common sex-specific aging markers across species in RNA-seq data. Aquatic Animal Models of Human Disease Conference, October 7, 2024, San Antonio, TX, USA
2. A. Aderogba*, F. Seemman, E. Randolph, and P.R. Biga. Validating fish neural cell isolation techniques for long-term storage and survival for DNA repair efficiency analysis. Aquatic Animal Models of Human Disease Conference, October 7, 2024, San Antonio, TX, USA
3. N. Yousuf*, E. Randolph, and P.R. Biga. DNA methylation aging clock in small fish models. Aquatic Animal Models of Human Disease Conference, October 7, 2024, San Antonio, TX, USA
4. K. Freij*, S. Turkmen, B. Cleveland, and P.R. Biga. Improving rainbow trout *Oncorhynchus mykiss* growth performance through optimization of diet-epigenetic interactions. Aquaculture America, February 2024, San Antonio, TX USA
5. M.N.T. Addo*, M.N. Latimer, S. Turkmen, K. Freij, and P.R. Biga. Low methionine availability during in vitro muscle growth alters circadian-regulated gene expression patterns in rainbow trout (*Oncorhynchus mykiss*). Aquaculture America, February 2024, San Antonio, TX USA
6. M.N.T. Addo*, M.N. Latimer, S. Turkmen, K. Freij, and P.R. Biga. Low methionine availability during in vitro muscle growth alters circadian-regulated gene expression patterns in rainbow trout (*Oncorhynchus mykiss*). Plant and Animal Genome Conference, January 2024, San Diego, CA
7. E.C. Randolph*, P.R. Biga, and N.C. Riddle. Challenges in cross-species comparisons of RNA-seq data sets. Plant and Animal Genome Conference, January 2024, San Diego, CA
8. K. Freij*, S. Turkmen, B. Cleveland, and P.R. Biga. Improving rainbow trout *Oncorhynchus mykiss* growth performance through optimization of diet-epigenetic interactions. Aquaculture America, February 2023, New Orleans, LA USA
9. K. Freij*, B. Cleveland, and P.R. Biga. Improving rainbow trout, *Oncorhynchus mykiss*, growth performance through optimization of diet-epigenetic interactions. Aquatic Animal Models of Human Disease Conference, October 2022, Woods Hole, MA USA
10. M.N.T. Addo*, K. Freij, P.R. Biga. The effects of fasting on *myostatin -2a*, *-2b* and *glut4* mRNA expression in muscle. Aquatic Animal Models of Human Disease Conference, October 2022, Woods Hole, MA USA
11. K. Freij*, S. Turkmen, B. Cleveland, and P.R. Biga. Improving rainbow trout *Oncorhynchus mykiss* growth performance through optimization of diet-epigenetic interactions. World Aquaculture Society, February 2022, San Diego, CA USA
12. K. Freij*, S. Turkmen, B. Cleveland, and P.R. Biga. Improving rainbow trout *Oncorhynchus mykiss* growth performance through optimization of diet-epigenetic interactions. Plant and Animal Genome, 2021, *Virtual*
13. R Reid*, E Velez, MN Latimer, PR Biga. Variable organismal growth potential corresponds to differential growth hormone signaling. North American Society for Comparative Endocrinology Conference, May 25, 2019, Gainesville, FL USA
14. K Freij*, KM Lee, PR Biga. 2B or not 2B: MSTN is the question. North American Society for Comparative Endocrinology Conference, May 25, 2019, Gainesville, FL USA
15. KM Lee*, R Reid, K Freij, PR Biga. Mechano-growth factor: a hypothesis of the evolution and action of the exercise-induced variant of IGF-I. North American Society for Comparative Endocrinology Conference, May 25, 2019, Gainesville, FL USA

16. MN Latimer*, JC Gabillard, BM Cleveland, PR Biga. Methionine restriction effects on miRNA composition, lipid deposition, and glucose tolerance in the skeletal muscle of rainbow trout. International Congress of Fish Biology, Calgary, Canada, 2018
17. RM Reid*, AL D'Aquila, PR Biga. The validation of a sensitive, non-toxic in vivo metabolic assay applicable across zebrafish life stages. International Congress of Fish Biology, Calgary, Canada, 2018
18. D'Aquila, AL*, RM Reid, PR Biga, M Locke, DA Lovejoy. The role of the Teneurin C-terminal Associated Peptide (TCAP) family in energy production in protochordates and chordates. 18th International Congress of Comparative Endocrinology & 4th Biennial Conference of the North American Society for Comparative Endocrinology, Lake Louise, Alberta, Canada, 2017.
19. Latimer, MN*, JC Gabillard, B Cleveland, PR Biga. Dietary methionine restriction: Effects on glucose tolerance, lipid content, and microRNA composition in the muscle of Rainbow trout. 8th Aquatic Animal Models of Human Disease, Birmingham AL, 2017
20. Reid, RM*, A D'Aquila, PR Biga. Novel insights for sarcopenia using myogenic precursor cell phenotypes for comparative in vitro analyses. 8th Aquatic Animal Models of Human Disease, Birmingham AL, 2017
21. D'Aquila, A*, RR Reid, D Lovejoy, PR Biga. Elucidating the role of TCAP, a novel mitochondrial regulator in aging models. 8th Aquatic Animal Models of Human Disease, Birmingham AL, 2017
22. Roman, D*, MN Latimer, PR Biga. Physical injury induced myogenic repair in *Danio rerio*. Society for Integrative and Comparative Biology, Portland, OR, 2017
23. Galt N*, JM Froehlich, SD McCormick, Biga, PR. A comparative evaluation of crowding stress on muscle HSP90 and myostatin expression in salmonids. International Congress on Fish Biology. San Marcos, TX, 2016
24. Reid, RM*, JM Froehlich, PR Biga. Novel insights into myogenic precursor cell phenotypes using comparative in vitro analyses. Aquaculture Conference, Las Vegas, NV, 2016
25. Reid, RM*, JM Froehlich, PR Biga. Novel insights into myogenic precursor cell phenotypes using comparative in vitro analyses. Society for Integrative and Comparative Biology, Portland, OR, 2016
26. Latimer, MN*, JM Froehlich, I Seiliez, PR Biga. *In vitro* myotubes derived from zebrafish myogenic precursor cells appear primed for autophagy. Society for Integrative and Comparative Biology, Portland, OR, 2016
27. Latimer, MN*, C Nelson*, JM Froehlich, I Seiliez, JC Gabillard, PR , Biga. The effects of differencing glucose concentrations on myogenic precursor cells in vitro. Society for Integrative and Comparative Biology, West Palm Beach, Florida, 2015
28. Roman, D*. MN Latimer, PR Biga. Post-physical injury stress analysis in Danio rerio. Society for Integrative and Comparative Biology, Portland, OR, 2015
29. Reid, RM*, JM Froehlich, PR Biga. Novel insights into myogenic precursors cell phenotypes using comparative in vitro analyses. Society for Integrative and Comparative Biology, Portland, OR, 2015
30. Larimer, MN*, JC Gabillard, I Seiliez, JM Froehlich, PR Biga. Starvation-induced changes in myogenic regulating genes in vitro. Society for Integrative and Comparative Biology, Portland, OR., 2015
31. Wulff, KT*, MN Latimer, PR Biga. Cortisol effects on local GH/IGF signaling in rainbow trout myogenesis. North American Society for Comparative Endocrinology Conference, Ottawa, Canada, 2015
32. Galt, NJ*, JM Froehlich, PR Biga. The regulation of myostatin by cortisol in three closely related salmonids. Society for Integrative and Comparative Biology, Austin, TX, 2014
33. Froehlich, JM*, I Seiliez, JC Gabillard, PR Biga. Epigenetic regulation of indeterminate myogenesis: characterization of histone modifications during the myogenic program in rainbow trout, *Oncorhynchus mykiss*. Society for Integrative and Comparative Biology, Austin, TX, 2014
34. Latimer, MN*, A Lohia, NJ Galt, PR Biga. Morpholigcal and gene expression analysis of muscle degeneration in the Salmonid; Oncorhynchus mykiss, toward a piscine model system of muscle wasting. 7th Aquatic Animal Models of Human Disease Conference, San Marcos, TX, 2014
35. Froehlich, JM*, ZG Fowler, EA Remily, SR Romero Arocha, NJ Galt, PR Biga. Applying zebra danio research to trout and salmon: are danios similar to salmonids? Aquaculture, Nashville, TN, 2013

36. Froehlich, JM*, ZG Fowler, NJ Galt, DL Smith, PR Biga. A case for indeterminate-growing fish as unique genetic model organisms in aging research with specific emphasis on sarcopenia. Stem Cells and Aging, Nathan Shock Aging Center Conference on Aging, Bandera, TX, 2013
37. Galt, NJ*, SD McCormick, B Franzen, JM Froehlich, PR Biga. Effects of exogenous stress on myostatin gene expression in three salmonids. Aquaculture, Nashville, TN, 2013
38. Froehlich, JM*, ZG Fowler, EA Remily, SR Romero Arocha, NJ Galt, PR Biga. The indeterminate growth conundrum: how do fishes continue to grow throughout their lives? Society for Integrative and Comparative Biology. San Francisco, CA, 2013
39. Fowler, ZG*, EA Remily, SR Romero, JM Froehlich, NJ Galt, PR Biga. Growth hormone increases myogenic precursor cell counts among danioninae species, regardless of growth paradigm. 10th International Congress on the Biology of Fish, Madison, WI, 2012
40. Franzen, B*, NJ Galt, JM Froehlich, PR Biga. The effects of an acute stress on myostatin gene expression in rainbow trout (*Oncorhynchus mykiss*). 10th International Congress on the Biology of Fish, Madison, WI, 2012
41. Galt, NJ*, SD McCormick, JM Froehlich, PR Biga. Glucocorticoid regulation of myostatin in salmonids. 7th International Symposium on Fish Endocrinology. Buenos Aires, Argentina, 2012
42. Froehlich, JM*, Z Fowler, NJ Galt, PR Biga. Skeletal muscle myogenesis appears to be dependent on Pax3 in indeterminate-growing fish. 10th International Congress on the Biology of Fish, Madison, WI, 2012
43. Galt, NJ*, SD McCormick, PR Biga. Glucocorticoid regulation of myostatin in Atlantic salmon and brook trout. 10th International Congress on the Biology of Fish, Madison, WI, 2012
44. Froehlich, JM*, ZG Fowler, EA Remily, SR Romero, NJ Galt, PR Biga. Delineating the difference between Danio and Devario: the effects of growth hormone on myogenic precursor cells in three closely related cyprinid species. 7th International Symposium on Fish Endocrinology. Buenos Aires, Argentina, 2012
45. Christensen, DJ*, KP Pakala, PR Biga. Expression of myostatin and akirin isoforms in mice (*Mus musculus*) fed a high-fat diet. Society for Integrative and Comparative Biology, Salt Lake City, UT, 2011
46. Billing, SR*, PR Biga. Expression of akirin isoforms during muscle regeneration in response to muscle injury in rainbow trout (*Oncorhynchus mykiss*). Society for Integrative and Comparative Biology, Salt Lake City, UT, 2011
47. Froehlich, JM*, PR Biga. Characterization of giant danio and rainbow trout primary myoblast cultures systems. Society for Integrative and Comparative Biology, Salt Lake City, UT, 2011
48. Charging, MJ*, SR Billing*, PR Biga. Tissue distribution of akirin genes in several vertebrate species including fish and rodents. Society for Integrative and Comparative Biology, Salt Lake City, UT, 2011
49. Galt, NJ*, B Meyer, **PR Biga**. The effects of high-fat dietary intake on the muscle growth axis in rainbow trout. Aquaculture, San Diego, CA, 2010
50. Galt, NJ*, SR Billing*, PR Biga. Acute stress differentially affects myostatin expression in rainbow trout, *Oncorhynchus mykiss*. Society for Integrative and Comparative Biology, Seattle, WA, 2010
51. Froehlich, JM*, PR Biga. Characterization of novel teleost systems for studying muscle growth. Society for Integrative and Comparative Biology, Seattle, WA, 2010

Invited Seminars

1. Texas A&M University, Corpus Christi, 'Methionine availability during *in vitro* muscle growth and aging phenotypes'. July 1, 2024
2. Ohio University, Biology Seminar Series, 'Fishes as powerful models for understanding sex differences in aging.' April 10, 2023
3. Oakland University, Graduate Research Symposium, Keynote Speaker, 'A Journey to Connect Science and Social Justice.' May 2021, *Virtual.*
4. University of Minnesota, Duluth, Featured Speaker for Swenson College of Science & Engineering, College Symposium. 'A Journey to Connect Science and Social Justice.' January 2021, *Virtual.*
5. Department of Biology Seminar, University of Southern Maine, 'Molecular and epigenetic regulation of growth potential from a piscine perspective.' 2018 (Host: Dr. Doug Currie)

6. 8th International Symposium of Fish Endocrinology, 'Growth hormone differentially regulates myostatin in Danio species.' June 28, 2016. Gothenburg, Sweden
7. International Congress on Fish Biology, 'A comparative evaluation of crowding stress on muscle HSP90 and myostatin expression in salmonids.' June 2016, San Marcos, TX
8. World Aquaculture Meeting, 'In vitro myotubes derived from zebrafish myogenic precursor cells upregulate Pax-3 and -7 following starvation.' February 2016. Las Vegas, NV
9. 3rd North American Comparative Endocrinology Society Conference, 'The effects of glucose concentration on muscle cell proliferation and regulation.' June 2015. Ottawa, Canada
10. University of Arkansas, 'Epigenetic regulation of myogenesis in indeterminate growth paradigms.' 2015. Host: Dr. Christian Tipsmarck
11. Birmingham Southern College, 'A comparative Approach to identify mechanisms regulating muscle growth paradigms.' July 21, 2014. Birmingham, AL, USA. Host: Dr. Scot Duncan
12. Workshop: International Congress of Comparative Endocrinology. 'Muscle Growth Regulation. Where are we now in regards to myostatin.' July 2013, Barcelona, Spain.
13. Institut National de la Recherche Agronomique (INRA). 'Characterization of indeterminate growth to understand commercially important Teleost species.' July 13, 2010, Rennes, France.
14. Plenary: International Fish Biology Conference. 'Fish as model organisms: Comparative analysis of differential growth potentials.' July 2012, Madison, WI.
15. *Institut National de la Recherche Agronomique* (INRA), Rennes, France. 'Comparative analysis of skeletal muscle growth regulation.' (Host: Jean-Charles Gabillard) 2010

UAB Seminars

1. Sigma Xi, Alabama Chapter Meeting, October 25, 2023, Citizen Science Panel Discussion, "IISAGE Community Outreach Program."
2. UAB Fish User's Meeting, 'Supplementing Rainbow Trout Broodstock Diets with Choline Improves Offspring Performance.' September 21, 2022
3. UAB School of Public Health, Coffee Hour, 'Science Policy at UAB', May 19, 2022.
4. UAB Advocacy for Women in Science and Medicine Conference, Workshop co-lead, 'Advocacy 101: Writing Letters to Representatives', April 29, 2022, *Virtual*.
5. Science Policy Advocacy Initiative (UAB SPAI), 'UAB Science Policy Certificate and Careers', October 2021, *Virtual*.
6. UAB GBS Pathology Seminar, 'A Journey to Connect Science and Social Justice: Science Policy.' March 21, 2021.
7. UAB Career Panel, 'Science Policy Career Opportunities – After Graduate School Options!', March 15, 2021, *Virtual*.
8. UAB STEMO Seminar Series, 'A Journey to Connect Science and Social Justice.' October 2020, *Virtual*.
9. UAB Fish Users Meeting, 'Dietary Effects of Methionine and Choline.' October 2020. *Virtual*.
10. UAB Biology Department Seminar, 'Empowering Scientists to Effectively Engage in the Policy Making Process.' September 2019. *Virtual*.
11. UAB Biology Department Seminar, 'Improving rainbow trout growth through optimization of diet-epigenetic interactions.'2018 (Host: Dr. Nicole Riddle)
12. UAB Nutrition Obesity Research Center Pilot and Feasibility Awardees Seminar, 'Changes in miRNA composition in the muscle of rainbow trout following methionine restriction.' 2018
13. 1st UAB Nathan Shock Symposium, 'Elucidating the roles of T-CAP, a novel mitochondrial regulator, in aging models.' March, 2017. Birmingham, AL
14. UAB Fish Users Meeting, 'Improving metabolic rate with Teneurin C-terminal Associated Peptide (TCAP)-3, across zebrafish life stages.' (Host: Dr. Matt Alexander), 2017
15. UAB, CAMBAC Pilot Grant Presentation, 'Generation of inducible Pax3 zebrafish to study muscle stem cell commitment effects on muscle function during aging and metabolic dysfunction.' 2016
16. UAB Center for Healthy Aging Seminar, 'Is organismal growth potential relation to aging phenotypes?' October 2015. Birmingham, AL
17. UAB Center for Health Aging Seminar, 'A case for indeterminate growing fish as unique genetic model organisms in aging research.' 2013. Birmingham, AL

18. UAB, Sigma Xi Seminar, 'Fish as model organisms: Comparative analysis of differential growth potentials.' 2012

Workshops and Other Presentations (2019-Present)

1. Alabama Scholars Strategy Network, 'Training Researchers to Inform Policy', Host, UAB Hill Student Center, February 21, 2023
2. "Lunch and Learn" with Alabama Appleseed and Alabama Scholars Strategy Network, Co-Host, Birmingham Zoo, May 23, 2022.
3. Science Policy Writing Workshop, Keynote Speaker, 'Writing Effective and Impactful Science Policy Papers.' Journal of Science Policy and Governance, April 23, 2022, *Virtual*.
4. Aquaculture is Agriculture, Series of 8 Workshops and 1 Readout Workshop, USDA, Co-Host, 2020, https://www.usda.gov/topics/farming/aquaculture/aquaculture-agriculture
5. Grand Challenge Climate Change & Pollinator Health, USDA Workshop, Co-Host, 2019

PROFESSIONAL DEVELOPMENT

1. Dare to Lead Workshop, McDonald Graham, LLC, February 2024
2. IISAGE Leadership Academy, UAB COLLAT School of Business, 2023
3. STEM Futures Workshop Series Participant, Arizona State University, 2019-2020
4. American Institute of Biological Sciences Communications and Advocacy Bootcamp, 2021
5. Inclusive Teaching Project Training course, Fall 2021
6. Foundational Open Science Skills training course, CyVerse, Spring 2021
7. Women in Leadership Course, eCornell, October 2020
8. Scholars Strategy Network, National Leadership Convening, Washington, DC January 17-18, 2019
9. Scholars Strategy Network May 2019 – Co-organized luncheon workshop for local scholars and local media outlets. Reporters from AL.com, NPR, APT, Weld, and PARCA attended, alongside 20 UAB and UA scholars/faculty.
10. Scholars Strategy Network – April 2019. Co-organized a writing workshop at DISCo for UAB and UA scholars to work on writing policy briefs. 4 scholars participated and 3 briefs were submitted to SSN.
11. 50th Anniversary White House Conference on Food, Nutrition, and Health, October 3-4, 2019; Freidman School of Nutrition Science and Policy & Harvard TH Chan School of Public Health.
12. Using policy analysis to engage policymakers and inform the public, October 18, 2019, AAAS, Washington, DC.
13. OneHealth Outbreak Exhibit one-on-one at the Natural History Museum. The creator and curator of the Outbreak Exhibit walked the OneHealth Affinity group through the exhibit, kiosk-by-kiosk explaining how the information was compiled and brought together for an exhibit at the NHM.
14. Sensory Nutrition and Disease Workshop, November 12-14, 2019, NIH, Natcher Conference Center.
15. National Academies of Science, Engineering, and Medicine Workshop on Supporting Parents and Caregivers in STEMM, December 2, 2019, National Academy of Sciences Building (Constitution Ave NW), Washington DC.
16. *Biguan*, NORC Grant Writing Retreat, November 2015, Group Mentoring, NSF proposal
17. National Institutes of Aging, Summer Training Course in Experimental Aging Research, 'Unique muscle regeneration model – indeterminate growing danion". June 2014. Seattle, WA
18. *Biguan*, NORC Grant Writing Retreat, September 2013, NIH proposal, Mentor: Dr. Lou Dell'Italia
19. Participated in Pedagogical luncheons offered at North Dakota State University, 2007-2010
20. Participated in 1st and 2nd year Teaching Seminars, Dean Kevin McCaul, North Dakota State University, 2007-2009
21. Professional Animal Scientist, Fish Biology, 2002

PUBLICITY (2019-2024)

1) Scholars Strategy Network, Outstanding Chapter Award Highlight
2) Dale Hollow National Fish Hatchery, U.S. Fish and Wildlife Service Highlight
3) Scholars Strategy Network, Chapter Highlight
4) Association for Women in Science (AWIS), Member Spotlight
5) STEMO receives a Sigma Xi grant Highlight
6) AAAS Science & Technology Policy Fellowship Highlight

Professional Society Memberships

Genetics Society of America (GSA)
Society for Integrative and Comparative Biology (SICB)
North American Society for Comparative Endocrinology (NASCE)
Society for Experimental Biology (SEB)
American Institute of Biological Sciences (AIBS)
American Association for the Advancement of Science (AAAS)
American Fisheries Society, Physiology Section (AFS, PS)
International Society for Fish Endocrinology (ISFE)
World Aquaculture Society (WAS)
Association for Women in Science (AWIS)
Scholars Strategy Network (SSN)

Professional Society & Meeting Involvement

International Society for Fish Endocrinology, International Science Committee (2019-present)
Aquatic Animals Models of Human Disease Conference, Host/Organizer 2017, Symposia Organizer/Chair 2019, 2021/2022, Scientific Committee 2022-present
North American Society for Comparative Endocrinology – Symposium Chair, Award Committee (2019-present)
Scholars Strategy Network, Alabama Chapter Leadership Team (2018-present)
American Fisheries Society, Physiology Section –Nominated for President-Elect (2014, 2018), Symposium Chair (2020, 2022)

HONORS & AWARDS

1. Scholars Strategy Network; Inaugural Outstanding Chapter Award, 2023, Alabama SSN; Biga Co-Leader
2. Humble Hero Award; City of Birmingham, Division of Youth Services – Youth First Program; Mayor William A. Bell, Sr. and Cedric Sparks, 2017
3. UAB Department of Biology, Altruism Award, 2017
4. Nutrition Obesity Research Center, Creativity is a Decision Prize, 'Egg allergy understanding from a different perspective: the hen producing the egg.' 2016
5. Stop Obesity Challenge Winner, Mid-South Transdisciplinary Collaborative Center for Health Disparities Research, UAB Minority Health and Health Disparities Research Center, 2015
6. Nutrition Obesity Research Center (NORC, UAB) Named New Investigator, 2013